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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,974	02/14/2002	Ichiro Seto	219567US2SRD	4969
22850	7590	12/13/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WANG, QUAN ZHEN	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/073,974	Applicant(s) SETO ET AL.	
	Examiner Quan-Zhen Wang	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarusawa et al. (U.S. Patent US 5,812,296).

Regarding claim 11, Tarusawa discloses a light transfer system comprising: a plurality of slave stations (fig. 4, 200-1 to 200-N), each comprising a light transmitter (fig. 4, 25) including a laser diode configured to output an optical signal corresponding to an information signal, each of the plurality of slave stations including a wavelength controller (fig. 4, 33) configured to control a wavelength of the optical signal output from the laser diode; and a master station (fig. 4, station 100) configured to receive (fig. 4, 11) an optical multiplexed signals (fig. 4, 300U) from the plurality of slave stations, the master station comprising a detector (fig. 4, noise detect 16) configured to detect optical beat noise from the optical multiplexed signal (column 2, lines 62-67); the wavelength of the light transmitter is controlled by adjusting an amount of heat radiated from an exothermic-effect-only heat source (fig. 13, heat source element 33B), the adjusting process inherently comprising tuning the exothermic-effect-only heat source on and off. Tarusawa differs from the claimed invention in that Tarusawa does not specifically teach

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that the master station outputs a wavelength control signal to control the wavelength of the optical output from the laser diode of at least one of the slave stations. However, Tarusawa further teaches that the master station outputs detected beat noise information to slave stations (column 2, lines 62-67) and the slave station repeatedly changes the wavelength of output laser randomly during the presence of the beat noise in order to eliminate the beat noise (column 3, lines 1-12). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the master station to output a wavelength control signal to control the wavelength of the optical output from the laser diode of at least one of the slave stations in order to reduce the duration of the presence of the optical beat noise.

Regarding claim 13, Tarusawa differs from the claimed invention in that Tarusawa does not specifically teach that the wavelength controller comprising a temperature measuring device configured to measure a temperature of the laser diode to then output a temperature information signal; the plurality of slave stations are configured to transmit to the master station the optical signal that also corresponds to the temperature information signal; the master station comprised a temperature information receiver configured to receive the temperature information signal. However, Tarusawa further teaches that there is a defined relation ship between the temperature and the wavelength of the laser diode (fig. 12). Therefore, the signal sending to the master station from the slave stations inherently corresponds to the temperature of the laser diode; and it would have been obvious for one of ordinary skill in the art at the time when the invention was made to configure the receiver of the master station to receive

the temperature information in order to generate a wavelength control information to send to slave stations.

Regarding claim 14, Tarusawa further teaches that the plurality of slave stations is each equipped with an antenna (fig. 4, 21), through which information is received as a radio signal (fig. 4, RFu).

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tarusawa et al. (U.S. Patent US 5,812,296) in view of Domon et al. (U.S. Patent US 5771,111).

Regarding claim 15, Tarusawa differs from the claimed invention in that Tarusawa does not specifically teach that the each of the plurality of slave stations comprising a frequency converter configured to convert a frequency of the information into a frequency band which is different from those of others of the plurality of slave stations, so that the optical signal comparing the respective frequency bands of each slave stations is transferred to the master station in optical sub-carrier multiplexing access. However, it is well known in the art to use a frequency converter to convert a signal of one frequency to a different frequency in order to relocate the signal to a desired frequency band. For example, Domon teaches using a frequency converter to convert the frequency of a signal in order to relocate the signal to a desired frequency band (column 6, lines 13-19). Domon further teaches to transfer optical signals using a sub-carrier multiplexing access (column 9, lines 5-18). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to in

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corporate a frequency converter into a slave station of Tarusawa, as it is taught by Domon, and convert the frequency of a signal into a frequency band which is different with each of the plurality of slave stations, and have the optical signal transferred to the master station in optical sub-carrier multiplexing access in order to relocate the signal to a desired frequency band.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 11, 13-15 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,417,942

B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application disclose a light transfer system comprising: a plurality of slave stations, each comprising a light transmitter including a laser diode configured to output an optical signal corresponding to an information signal, each of

the plurality of slave stations including a wavelength controller configured to control a wavelength of the optical signal output from the laser diode; and a master station configured to receive an optical multiplexed signals from the plurality of slave stations, the master station comprising a detector configured to detect optical beat noise from the optical multiplexed signal and to control the slave stations to reduce the beat noise of the system.

Response to Arguments

6. Applicant's arguments with respect to claims 11, 13-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8: Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

qzw
12/9/2005


M. R. SEDIGHIAN
PRIMARY EXAMINER